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A PREDICTIVE MODEL OF
TRANSFER ADJUSTMENT IN
THE U.S. MARINE CORPS

James B. Shaw
Cynthia D. Fisher
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August, 1983

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) This report describes a study of transfer socialization processes in a sample of 91 U.S. Marines transferred from Camp Pendleton, California to Camp Hansen, Okinawa in November, 1981. Using data collected both at Camp Pendleton and Camp Hansen, an attempt was made to develop a predictive model of transfer adjustment. Data concerning four major indices of transfer adjustment were obtained: (1) organizational commitment, (2) the use of positive and negative coping behaviors while in Okinawa, (3) attitude toward social and environmental aspects of life in Okinawa, and (4) self-ratings of overall Okinawa adjustment.			

Predictors used in the model were: (1) pre-transfer expectations concerning Okinawa and the amount and perceived accuracy of information received prior to transfer, (2) pre-transfer satisfaction and commitment, (3) personal and demographic characteristics including past life experiences, length of service, education, and ability, (4) attitudes of significant others, and (5) pre-transfer behavioral coping styles. Results indicated the existence of a 'personal adjustment style' which may have influenced transfer adjustment. Results also indicated a potentially strong effect upon transfer adjustment processes of the "unit rotation" procedures now used by the U.S. Marine Corps. Implications of the results are discussed along with suggestions for future research.

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A Predictive Model of Transfer Adjustment
In The U.S. Marine Corps

James B. Shaw
Cynthia D. Fisher
Richard W. Woodman

This report describes a study of transfer transition socialization processes in a sample of U.S. Marines. The individuals in this sample were transferred from Camp Pendleton, California to Camp Hansen, Okinawa in November 1981 and remained in Okinawa for a six months tour of duty. The study presented in this report utilized a longitudinal survey methodology in an attempt to develop a predictive model of transfer adjustment. Four major indices of adjustment were used. These indices related to: (1) organizational commitment, (2) the use of "positive" and "negative" coping behaviors while in Okinawa, (3) attitude towards the social and environmental aspects of life in Okinawa, and (4) a self-rating of overall Okinawa adjustment. Predictors used in our model of transfer adjustment were: (1) pre-transfer expectations concerning Okinawa and the amount and perceived accuracy of information received about Okinawa prior to transfer, (2) pre-transfer satisfaction and commitment, (3) personal/demographic characteristics including past life experiences, length of service, education, and ability, (4) attitudes of significant others, and (5) pre-transfer behavioral coping styles.

In the following pages a review of literature relevant to our predictive model is given. As Fisher, Wilkins and Eulberg (1982) point out, relatively little empirical research has been conducted to determine the specific factors which relate to the adjustment of individuals who are transferred by their employers. Thus much of the work discussed comes from

the organizational "entry" socialization literature. Following this review, hypotheses relating to specific aspects of the model are delineated and a description of the methodology and results of our test of the model are given. Implications of our findings and areas for future research are discussed.

Transfer Transition Socialization

Considerable attention has recently been given to the processes associated with organizational socialization (Feldman, 1981; Fisher and Weekley, 1982; Louis, 1980; Van Maanen and Schein, 1979). Most of this literature has been concerned with what occurs when a new employee enters the organization for the first time. Schein (1968) has defined entry socialization as the "process by which a new member learns and adapts to the value system, the norms, and the required behavior patterns of an organization, ..." (p. 1). The present study is concerned not with entry socialization but rather with what we refer to as "transfer transition socialization" processes.

Traditionally "transfer" has meant that an employee has changed work sites within an organization and this change has required a relocation of domicile. Schein (1971) has identified three additional types of transfers which do not fit this traditional definition. These three types of transfers are (1) vertical, where an employee moves vertically through the organization via formal promotion or demotion, (2) lateral, where the employee moves from one functional area of the company to another, and (3) radial, where the employee moves informally from a level of exclusion from the decision-making/influence/information centers of the company to a level of inclusion in those centers (or vice versa). In the present study we were

concerned primarily with the traditional "geographical" transfer with, in this case, Marines making a temporary, geographical relocation from California to Okinawa. The transfer under study involved the relocation of an entire battalion of Marines, as an intact unit. Thus, except in a very few cases, an individual Marine's vertical, lateral, and radial location within the organization remained constant. Schein's (1968) definition of socialization as a learning and adapting process applies equally well to the notion of transfer transition socialization. However, it is critical to remember that factors associated with transition socialization (e.g. job experience, familiarity with co-workers, knowledge of the organization) may be very different from those found in organizational entry situations.

Transfer Adjustment Defined

Empirical research, which clearly defines the phrase "transfer adjustment," is non-existent. Most of our understanding about what represents an adequate adjustment to a transfer by an individual comes from the literature on entry socialization. Unfortunately, as Fisher (1982) points out "there is much variety but little consensus on what the outcomes of socialization are" (p. 2). In discussing the notion of successful outcomes of socialization (either entry or transition), affective, cognitive, and behavioral criteria must be included. Feldman (1981) suggests three affective outcomes of socialization: general job satisfaction, internal work motivation, and job involvement. Toffler (1981) also includes job facet satisfaction as a possible outcome. Alpert, Atkins and Ziller (1979), Dubin, Hedley, and Taveggia (1976), and Edstrom and Galbraith (1977) include commitment to the organization as an outcome of socialization. Fisher (1982) in a study of recently graduated nurses who were taking their

first job, found that individual perceptions of "belonging" could be viewed as a "personal" outcome of socialization. In addition to such affective and cognitive consequences of socialization, Feldman (1981) suggests that socialization processes have a considerable effect upon individual behaviors. Thus, if we view a transfer as a significant change to which an individual must adjust behaviorally, the incidence of various functional and dysfunctional behaviors may well be an appropriate index of transition socialization success.

In the present study affective, cognitive, and behavioral indices of transition socialization success were obtained. Measures of organizational commitment, attitudes towards Okinawa, behavioral coping strategies, and self-perceived adjustment were made.

Predictors of Transfer Adjustment

The primary objective of the present study was to develop a predictive model of adjustment to transfer. Literature, both from the transfer transition and entry socialization areas, indicated that at least five major categories of predictor variables were relevant. These were: (1) pre-transfer expectations, (2) pre-transfer satisfaction and commitment, (3) personal/demographic variables, (4) pre-transfer attitudes of significant others, and (5) pre-transfer behavioral styles.

Information and Expectations. Numerous authors have pointed to the importance of the "anticipatory" stage of socialization, i.e. processes which occur prior to the individual's entry into a new organization or transfer within an organization (Mortimer and Simmons, 1978; Schein, 1968; Van Maanen, 1976). Much of the work concerning anticipatory socialization has been concerned with the amount and accuracy of information received by

individuals prior to entry into organizations and the effect of this information on subsequent adjustment. Specifically, considerable work has been done to examine the relationship between expectations developed prior to organizational entry and subsequent ease of socialization. The basic premise of this research is that if one receives considerable accurate information prior to organizational entry or transfer, subsequent socialization will proceed far more smoothly than if little information and/or inaccurate information is received. Several studies have found that information received prior to organizational entry often results in unrealistically high expectations (Schneider, 1972; Wanous, 1976; Ward and Athos, 1972). The realism of expectations have, in turn, been found to relate to job turnover (Hoiberg and Berry, 1978; Katzell, 1968) and other measures of socialization success (Feldman, 1976). In the present study, expectations concerning a wide variety of aspects of the transfer situation were obtained along with reports of the amount and perceived accuracy of information received prior to transfer. It was expected that as the amount of accurate information received increased, realism of expectations developed from this information would also increase, and subsequent adjustment to the transfer would be greater.

Pre-transfer satisfaction and commitment. Burke (1972, 1974), in a study of the wives of transferred employees, found that the level of satisfaction with the pre-transfer location was negatively related to satisfaction with the new location. This indicates, perhaps, that the more one has to give up in leaving the previous location, the less predisposed one is to like the new location. Brett and Werbel (1980) found evidence to suggest an opposite relationship, i.e., that individuals who were satisfied with their "last move" were subsequently more willing to transfer than in-

dividuals who were dissatisfied. Such a finding might suggest that a more permanent "transfer ability" underlies the pre-transfer--post-transfer satisfaction relationship. That is, people who are able to be satisfied in one location will be able to become satisfied in another. Pre-transfer satisfaction was measured in the present study to examine these competing hypotheses.

Fisher et al. (1982) suggest that perceived freedom of choice in accepting a transfer will be positively correlated with transfer success. One rationale for this hypothesis is that individuals who freely choose to accept a transfer will feel more committed to the move and work harder to make it succeed. Since, in the present study, the Marines involved had essentially no choice in making the transfer, a measure of perceived freedom of choice was inappropriate. However, since the underlying rationale for the choice hypothesis concerns the commitment which such choice engenders in the individual, it was decided to obtain some measure of organizational commitment, with the expectation that pre-transfer commitment would relate positively to post-transfer adjustment.

Personal/Demographic Factors

A number of authors have suggested a wide variety of personal characteristics which are necessary to successfully transfer to a foreign country. These characteristics range from having the ability to speak the language (Voris, 1975), to an ability to be stimulated by ambiguous situations (Sieveking, Anchor, & Marston, 1981), to the "stamina of an Olympic runner" (Heller, 1980, p. 48). Each of those qualities involve the ability of the individual to cope mentally or physically with new and challenging situations. These abilities are developed or learned through the past experi-

ences of the individual. Unfortunately, as Fisher et al. (1982) point out, many characteristics of successful expatriates have been described, but none of those suggestions have been validated by empirical research.

In the present study several personal/demographic characteristics were measured. Those included adjustment to previous moves, scores on two ability tests, length of service, past travel experiences and educational level. Each of these factors were thought to be at least an indirect index of an individual's previous opportunity to learn mechanisms helpful in transfer situations. Since the definition of transfer transition socialization emphasizes the learning and adaption aspects of this process, it was predicted that individuals with greater levels of the personal/demographic factors would have learned or be able to learn more quickly the skills necessary to adjust successfully to a transfer, and this would result in a greater overall level of transfer adjustment.

Attitudes of Significant Others. Numerous studies have pointed to the dramatic effect (both positive and negative) that transfers may have upon the family of the individual being transferred (Frankel & Strauss, 1981; Pospicil, 1974; and Seidenberg, 1973). Other studies have shown the effect that family attitudes and behaviors can have upon the transferee, particularly the individual's willingness to accept a transfer (Brett & Werbel, 1980; Levenson & Hollman, 1980).

In the present study, logistical difficulties prevented us from examining in detail the attitudes of significant family members and others (e.g. girlfriend, fiancée) toward the transfer. However, measures of the perceived attitudes of significant others were obtained from the Marines involved in the study. Although such data is "second hand," it might be

argued that the individual's perception of family/significant others' attitudes may well be more predictive of transfer adjustment than more "objective" measures taken directly from the family members. Consistent with previous research, it was expected that a positive relationship would be found between the attitudes of family/significant others towards the transfer and subsequent adjustment to the transfer by the individual.

Coping Styles. A final set of predictors of transfer adjustment involved measures of pre-transfer behavioral coping styles. Since past behavior is often the best predictor of future behavior, it was felt that individuals who showed high pre-transfer levels of negative behaviors such as heavy drinking and drug use would tend to continue these behaviors in Okinawa. Similarly, individuals who showed higher pre-transfer levels of positive coping behaviors such as sports or hobbies would be more likely to exhibit these behaviors in Okinawa than individuals with low pre-transfer levels of these positive behaviors. Additionally, it was believed that pre-transfer levels of negative behaviors would be negatively related to other aspects of transfer adjustment while pre-transfer levels of positive behaviors would show a positive relationship. In other words, individuals who are successfully coping with one environment should adjust to a new environment better than individuals who are not coping with the original environment in acceptable ways.

Hypotheses

In summarizing the preceding review of literature, a number of hypotheses have been developed. These are:

- (1) There will be a positive relationship between the realism of pre-transfer expectations and transfer adjustment.
- (2) There will be positive relationship between transfer adjustment and the amount of accurate information concerning the transfer received prior to actual departure.

- (3) Pre-transfer satisfaction will be related to transfer adjustment, although the exact nature of this relationship is uncertain.
- (4) Pre-transfer commitment will be positively related to transfer adjustment.
- (5) Past adjustment success, education level, ability level, amount of past travel experience, and length of service will be positively related to transfer adjustment.
- (6) There will be a positive relationship between transfer adjustment and the pre-transfer favorability of family members and significant others toward the transfer.
- (7) There will be a positive relationship between pre-transfer negative coping behaviors and post-transfer negative behaviors. A similar relationship will exist between pre-transfer positive coping behaviors and post-transfer positive behaviors.
- (8) There will be a negative relationship between pre-transfer dysfunctional coping behaviors and other aspects of transfer adjustment. There will be a positive relationship between pre-transfer positive coping behaviors and other aspects of transfer adjustment.

METHOD

Data were collected from a sample of U.S. Marines stationed at Camp Pendleton, California in October, 1981. Questionnaires and a structured interview were used to collect data. Modified versions of those instruments were used in April, 1982 to collect data from the Marine sample while they were in Okinawa. Additional data used in the study were provided by the U.S. Marine Corps from the personnel files of the individuals in the sample.

Sample

The sample consisted of 91 Marines stationed at Camp Pendleton who were scheduled to transfer to Okinawa. Table 1 contains a breakdown of the sample by rank, length of service, and marital status. Of the 91 Marines, 30 had never been outside of the United States. Ninety percent of the re-

Table 1
Selected Descriptive Statistics of the Marine Sample

Distribution By Rank:

<u>E1, E2</u>	<u>E3</u>	<u>E4</u>	<u>E5 and above</u>	<u>Not given</u>
24	15	40	9	3

Distribution By Length of Service:

<u>6-12 months</u>	<u>13-24 months</u>	<u>25-36 months</u>
16	27	24
<u>37-48 months</u>	<u>49+ months</u>	<u>No response</u>
9	12	3

Marital Status:

<u>Single</u>	<u>Married</u>	<u>Unknown</u>
81	8	2

spondents were members of the 2nd Battalion, 7th Marine Regiment. Our sample was intentionally selected to include a greater percentage of lower ranked, unmarried Marines than is found in the 2nd Battalion 7th Marines as a whole, since it was these individuals the Marine Corps felt experienced greater difficulty in making effective transfers. It should be noted, however, that several senior NCO's and officers were included in the sample to broaden the qualitative aspects of the data. Some of the original 91 Marines who participated in the study at Camp Pendleton were unavailable in Okinawa. Thus, in Okinawa, data were collected for only 79 of the original 91 Marines.

Procedure

A survey instrument was developed following a review of the literature on entry and transfer socialization processes in organizations. Also, preliminary interviews with Marines who had recently returned from Okinawa were held, and this data was used extensively in the design of the final survey instrument. Only a portion of the data collected in the survey is reported in this paper.

The data collection procedure required both written and oral responses from the individual. Each Marine first answered a questionnaire. Research interviewers then orally asked the items in the second section of the survey and recorded the respondents' answers on the survey form. The interview portion of the survey allowed us to insure that the respondent adequately understood the nature of the question being asked. It also allowed the interviewers to ask open-ended questions and thus develop a more in-depth understanding of the respondents' attitudes and perceptions. After the interview, each Marine individually completed the final section of the

survey which dealt with the amount, sources, and accuracy of information received about the upcoming transfer. Directions for completing the final section of the survey were carefully explained by the researchers, and they remained available to answer any questions the respondent had.

A nearly identical format was used in collecting data from the Marines in Okinawa. Some items were reworded for use in Okinawa, i.e. items which essentially asked "what do you expect Okinawa to be like" were reworded to ask "what is Okinawa like." Some additional items were also added to the Okinawa survey instrument.

Measures of Predictors

Data concerning expectations, amount and accuracy of information, satisfaction, commitment, some personal/demographic characteristics, attitudes of significant others, and behavioral coping styles were collected at Camp Pendleton. Data on education, ability, and length of service were obtained from U.S. Marine Corps personnel files.

Expectations. Data concerning expectations about a variety of aspects of the Okinawa transfer were obtained during the Pendleton survey. Because of the relatively small sample size in the final sample (N=79), the relatively large number of expectation items on the survey, and our intention to use regression analysis techniques to develop a predictive model of transfer adjustment, we decided to attempt to "reduce" the number of expectation variables through the use of factor and logical content analysis procedures. Since the overall sample size would tend to produce a relatively unstable factor structure, the results of the factor analysis were used as a guide (rather than as the sole criterion) for grouping items into broader categories. Items which loaded strongly ($> .50$) on the same factor

and which seemed logically related to one another were considered as belonging to the same factor. Items which did not load significantly on a factor or did not seem logically related to other items in the factor were excluded.

Using this procedure, three major expectation factors were derived. They were: (1) expectations concerning the living and social activities in Okinawa, (2) expectations concerning the natives of Okinawa and the environmental conditions, and (3) expectations concerning the individual's expected ease of adjustment to Okinawa. Table 2 contains a list of the items included in each of these three major expectation factors. Scores for each factor were derived by summing the ratings on individual items. Where necessary, item scoring was reversed so that a high number always indicated a positive expectation about Okinawa.

Amount and Accuracy of Information. Appendix A contains the section of the Pendleton survey which dealt with the amount, source, and perceived accuracy of information received prior to transfer. Three different types of information were included on the survey. These were: (1) information about the job one would be doing in Okinawa, (2) information about life in general in Okinawa, and (3) information about how to adjust to Okinawa. The amount of each type of information received from each of nine different sources was indicated using a 0=none, 1=some, and 2=much information scale. Accuracy was rated using a scale in which 0=no information received, 1=uncertain how accurate, 2=fairly inaccurate, and 3=fairly accurate. In deriving scores for use in analyses, the response "fairly inaccurate" was recoded to equal 1, and the response "uncertain" was assigned a value of 2. Three different summary scores were derived: (1) sum of the rated amount

Table 2

Expectation Factors and Items Used as Predictors

Factor 1: Living/Social Activities

1. Compared to here, living in Okinawa will be:

1	2	3	4	5
Much more boring	More boring	About the same	More interesting	Much more interesting

2. Compared to here, my standard of living while in Okinawa will be:

1	2	3	4	5
Much poorer	Poorer	About the same	Better	Much better

3. Compared to here, the activities and entertainment available for leisure time in Okinawa will be:

1	2	3	4	5
Much worse	Worse	About the same	Better	Much better

4. Compared to here, in Okinawa I will have:

1	2	3	4	5
Many fewer friends	Fewer friends	About the same	More friends	Many more friends

Factor 2: Natives/Environment

5. The natives on Okinawa will be:

1	2	3	4	5
Very Hostile	Hostile	Indifferent	Friendly	Very Friendly

6. Compared to here, the weather in Okinawa will be:

1	2	3	4	5
Much worse	Worse	About the same	Better	Much Better

Factor 3: Expected Adjustment

7. In Okinawa, I will miss my family/relatives:

1	2	3	4	5
Much more than here	More than here	About the same	Less than here	Much less than here

8. Overall, I expect my transfer and adjustment to Okinawa to be:

1	2	3	4	5
Very Difficult	Difficult	So-So	Easy	Very easy

Table 2 (cont.)

9. On the whole, would you prefer to be at Camp Pendleton or in Okinawa?
- 1 Okinawa strongly preferred
 - 2 Okinawa somewhat preferred
 - 3 Okinawa slightly preferred
 - 4 no preference
 - 5 Camp Pendleton slightly preferred
 - 6 Camp Pendleton somewhat preferred
 - 7 Camp Pendleton strongly preferred
10. On the whole, would you say you are giving up a lot to go to Okinawa, or gaining a lot by going?
- 1 giving up a lot
 - 2 giving up a little
 - 3 about even
 - 4 gaining a little
 - 5 gaining a lot
11. When you go to Okinawa, how long do you think it will take to become comfortable?
- 1 no time at all
 - 2 a week or two
 - 3 about a month
 - 4 more than a month
 - 5 I'm still not comfortable here

of information across all information sources and information types, (2) sum of the rated accuracy of information received across all sources and information types, (3) the sum of the products of amount X accuracy of each source summed across all sources and information types. These three total scores were used in subsequent analyses.

Pre-Transfer Satisfaction and Commitment. Five items on the Pendleton survey dealt with present satisfaction and commitment levels of the individual. Two items "overall, my level of satisfaction with Camp Pendleton is:", and "how satisfied have you been with the Marine Corps up to now" were answered using a 5-point very dissatisfied/very satisfied response format. One item, "I intend to complete my enlistment" used a 5-point strongly disagree/strongly agree format. The final two items, "I intend to re-enlist," and "what are the chances that you will finish your enlistment" were answered using a 5-point definitely not/definitely yes format. A factor analysis conducted on those items yielded three very distinct factors, two dealing with commitment and one with satisfaction. The first factor included only the item on satisfaction with Camp Pendleton. This factor was named "satisfaction with Pendleton." The second factor, "short-term enlistment commitment," included both items dealing with intention to complete present enlistment. The third factor, "long term re-enlistment," included the item concerning intention to re-enlist in the Marine Corps, and the item indicating overall satisfaction with the Marines. Scores for both commitment factors were derived by summing the items within each factor.

Personal/Demographic Variables. Data on seven different personal/demographic variables were obtained from either the survey instrument or Marine Corps personnel files. Two items from the Pendleton survey instru-

ment were used to measure the individual's perceived relocation adjustment. The first item, "when you were in boot camp, how easy was it for you to adjust to the routine and the hassle," was rated on a 5-point, very easy to get adjusted/very difficult to get adjusted scale. The second item, "looking back over your life to the times you've moved or experienced a major change, would you say that," was rated using a 5-point, almost always learned to be happy/almost always stayed unhappy scale. A "previous adjustment" score was derived by summing these two items, with a high score indicating an easy, positive adjustment.

Two indices of previous travel experience were obtained from the survey. The first was an indication by the individual as to the number of cities (different places) they had lived in prior to joining the Marines. A second index of travel experience was the number of weeks the individual had spent outside of the United States. These two indices were used separately in subsequent analyses since it was felt that they represented two very qualitatively different types of travel experience.

Scores on two different Marine Corps ability tests were obtained from Marine files for each individual. One score was for the General Technical Composite Test while the second was for the AFEE Mental Group Test.

Education level for each individual was obtained from personnel files. Education level was measured as the number of years of education the individual had prior to making the transfer.

A final personal/demographic variable was available from the survey instrument. This variable, length of service, was the number of months the individual had already served in the Marine Corps.

Attitudes of Significant Others. One open-ended question on the Pendleton survey concerned the perceived attitude of significant others to-

ards the Okinawa transfer. Specifically, the item asked "how does your wife/family/girlfriend feel about you going to Okinawa." Responses to the item were content analyzed and assigned a score ranging from 1=very negative to 5=very positive. The content analysis suggested that responses could be divided into two categories based upon the individuals to whom the attitudes were attributed. Marines responding to this question indicated that their responses concerned either the attitudes of their immediate family (wife, parents, siblings) or of their girlfriend (financee in some cases). Thus, two scores for each Marine were derived from this question, e.g. (1) perceived attitude of family and (2) perceived attitude of girlfriend. These two scores were used separately in subsequent analyses.

Behavioral Coping Style. Eleven items taken from the Pendleton survey dealt directly with how individuals tended to cope with life as a marine. Based upon work in the area of stress coping (e.g. Newman & Beehr, 1979) these eleven items were divided into three major behavioral coping styles: (1) positive coping behaviors involving primarily cognitive or social activities, (2) positive coping behaviors related to hobbies or sports, and (3) negative coping behaviors. Table 3 contains a list of the items from the Pendleton survey included in each of these three categories.

Dependent Variables

Data was collected on four major dependent variables which were felt to best capture the concept of transfer adjustment: (1) self-rated adjustment, (2) commitment, (3) attitudes toward Okinawa, and (4) use of positive and negative coping behaviors while in Okinawa. Data on these four major categories of variables were obtained from the modified survey given to Marines in Okinawa six months after they had completed the Pendleton

Table 3

Behavioral Coping Styles

Factor 1: Cognitive/Social Coping

1. Go and talk to someone who can help you feel better or help you
work out the problem _____
(If the response is 3 or 4 ask who)
2. Try to plan ahead or organize yourself so that you can deal
with the problem better _____
3. Try to get additional training or learn something new that
will help you deal with the problem _____

Factor 2: Hobbies/Sports

4. Relax with a book, hobby, listen to music _____
5. Play some sport (jog, basketball, football, etc.) _____

Factor 3: Negative Coping

6. Get angry to the point of "telling somebody off" _____
7. Get in a physical fight with somebody _____
8. Go out with your friends and get drunk _____
9. Use some other drug other than alcohol _____
10. Been on an unauthorized absence? # of times _____
11. Been in the brig? # of days _____

survey.

Items used to measure self-rated adjustment to Okinawa are listed in Table 4. In subsequent analyses, items were scored so that a high value indicated an easy adjustment. A total adjustment score was derived by summing across all items. Long term re-enlistment and short term enlistment commitment were measured using items identical to those in the Pendleton survey which related to the individual's intention to complete their present enlistment, intention to re-enlist, and overall satisfaction with the Marine Corps.

Attitudes toward Okinawa were measured using slightly modified versions of the items listed under Factors 1 and 2 in Table 2. Items were reworded to ask how is Okinawa rather than how do you expect Okinawa to be. Attitudes toward the living/social activities in Okinawa was measured by summing the individual items. An identical procedure was used to measure attitudes toward natives environment.

Behavioral coping patterns used in Okinawa were measured using items identical to those previously described in Table 3. Scores in cognitive/social coping, hobbies/sports, and negative coping behaviors were derived.

RESULTS

Correlation and regression analyses, along with t-tests of mean differences were used to test the hypotheses in this study. Table 5 contains the mean and standard deviation of the independent and dependent variables used in these analyses. Table 6 contains the inter-correlations among our major dependent variables.

Table 4

Items Used to Measure Self-Rated Okinawa Adjustment

1. In Okinawa, I have missed my family/relatives:

1	2	3	4	5
Much more than at Pendleton	More than at Pendleton	About the same	Less than at Pendleton	Much less than at Pendleton

2. Overall, my transfer and adjustment to Okinawa has been:

1	2	3	4	5
Very difficult	Difficult	So-So	Easy	Very easy

3. On the whole, would you prefer to be at Camp Pendleton or in Okinawa?

- 1 Okinawa strongly preferred
- 2 Okinawa somewhat preferred
- 3 Okinawa slightly preferred
- 4 no preference
- 5 Camp Pendleton slightly preferred
- 6 Camp Pendleton somewhat preferred
- 7 Camp Pendleton strongly preferred

4. On the whole, would you say you gave up a lot to go to Okinawa, or gained a lot by going?

- 1 gave up a lot
- 2 gave up a little
- 3 about even
- 4 gained a little
- 5 gained a lot

5. When you were transferred to Okinawa, how long did it take you to feel comfortable living here?

- 1 no time at all
- 2 a week or two
- 3 about a month
- 4 more than a month
- 5 I'm still not comfortable here

Table 4 (cont.)

6. How would you rate your own performance on this Okinawa tour?

- 1 outstanding
- 2 very good
- 3 good
- 4 average
- 5 poor
- 6 very poor
- 7 awful

Table 5
Means And Standard Deviations For Major
Independent And Dependent Variables

<u>Independent Variables</u>	<u>X</u>	<u>SD</u>
1. Expectations: Living/Social Activities	12.6	2.8
2. Expectations: Natives/Environment	5.8	1.3
3. Expected Adjustment	13.7	4.2
4. Total Information	16.5	7.5
5. Total Accuracy	30.3	14.5
6. Total Product	41.7	23.3
7. Satisfaction w/ Pendleton	2.9	1.2
8. Short-term Enlistment Commitment	9.2	1.3
9. Long-term Re-enlistment Commitment	5.9	2.0
10. Previous Adjustment	6.4	1.8
11. Number of Cities	3.1	3.3
12. Number of Weeks	31.0	65.3
13. General Technical Composite	98.0	15.7
14. AFEE	44.7	22.9
15. Education	11.8	.76
16. Length of Service	27.6	17.8
17. Attitude of Family	2.9	1.2
18. Attitude of Girlfriend	2.4	1.3
19. Cognitive/Social Coping: Pendleton	7.7	2.4
20. Hobbies/Sports: Pendleton	14.6	11.1
21. Negative Coping: Pendleton*	.02	2.7
 <u>Dependent Variables</u>		
1. Self-rated Okinawa Adjustment	16.1	5.3
2. Short-term Enlistment Commitment: Okinawa	9.2	1.2
3. Long-term Re-enlistment Commitment: Okinawa	5.8	2.3
4. Attitude Towards Living/Social Activities	10.4	2.9
5. Attitude Towards Natives/Environment	5.6	1.2
6. Cognitive/Social Coping: Okinawa	7.9	2.5
7. Hobbies/Sports: Okinawa	15.7	16.7
8. Negative Coping: Okinawa*	.09	2.7

*% scores

TABLE 6

Intercorrelations Among Dependent Variables

	1	2	3	4	5	6	7	8
1. Self-rated Okinawa Adjustment	-	.11	.23*	.50**	.29**	.33**	.07	-.28*
2. Short-term Enlistment Commitment	-	-	.24*	.06	-.07	.26*	.04	-.34**
3. Long-term Re-enlistment Commitment	-	-	-	.21	.08	.34**	.18	-.46**
4. Attitude Towards Living/Social Activities	-	-	-	-	.40**	.34**	.08	-.22
5. Attitude Towards Natives/Environment	-	-	-	-	-	.10	.07	-.09
6. Cognitive/Social Coping: Okinawa	-	-	-	-	-	-	.09	-.31**
7. Hobbies/Sports: Okinawa	-	-	-	-	-	-	-	-.08
8. Negative Coping: Okinawa	-	-	-	-	-	-	-	-

*p < .05

**p < .01

Realism of Expectations

Hypothesis one stated that realism of expectations would be related positively to Okinawa adjustment. To test this hypothesis a measure of expectation realism was derived using items from the Pendleton survey (Items 1-10 in Table 2) and the items corresponding to these in the Okinawa survey. By using these two sets of items we had available: (1) items which indicated what Marines expected Okinawa to be like, as well as their expectations concerning their ability to adjust to life in Okinawa, and (2) items which indicated the Marines' feelings about these same issues after having been in Okinawa approximately six months. Table 7 contains the means and standard deviations of the responses given by Marines on these ten items in both the Pendleton and Okinawa surveys. Also given are the results of t-tests of differences between the Pendleton and Okinawa means. In order to be included in the t-test, a respondent had to complete the item in both the Pendleton and Okinawa surveys. Thus, the n for t-tests varied across items.

Mean responses on five of the items differed significantly across the two survey administrations. The Marines in our sample had expectations concerning living in Okinawa, their standard of living in Okinawa, and the availability of entertainment activities which were significantly higher than they later found Okinawa to be like. Their expectations concerning the number of friends they would have in Okinawa and the difficulty they would have in adjusting to the transfer were significant underestimates of Okinawa reality.

The results of these t-tests indicated that some degree of expectation "unreality" existed. The question posed by hypothesis one concerned the

Table 7

Means, Standard Deviations, And T-tests Of
Differences Between Selected Items From The
Pendleton And Okinawa Surveys

Item	Pendleton		Okinawa		t	df
	X	SD	X	SD		
1. Living in Okinawa	3.54	1.07	2.22	1.25	7.44**	74
2. Natives in Okinawa	3.29	.67	3.28	.80	NS	77
3. Standard of Living	2.98	.93	2.53	.97	3.64**	78
4. Weather in Okinawa	2.52	.89	2.32	.74	NS	78
5. Activities/Entertainment	3.03	1.13	2.43	1.07	3.83**	78
6. Friends in Okinawa	2.98	.75	3.25	.98	-2.88**	78
7. Missing Family/Friends	2.25	.97	2.08	1.06	NS	78
8. Difficulty of Transfer	3.41	.88	3.65	.96	-2.58*	78
9. Okinawa Preference	4.89	1.91	5.42	2.03	NS	78
10. Gains/Losses	3.49	1.34	3.15	1.48	NS	77

NS = not significant

*p < .05

*p < .01

relationship of these discrepancies to Okinawa adjustment. Regression analyses were conducted using responses on these ten items taken at Pendleton, Okinawa, and a measure of the discrepancy (Pendleton-Okinawa) to predict Okinawa short term enlistment commitment, Okinawa long term re-enlistment commitment and negative coping behaviors measured in Okinawa. Difference scores (Okinawa minus Pendleton) were used in these regression analyses. However, because of serious psychometric problems associated with the use of difference scores, an alternative interaction variable (Pendleton x Okinawa) was also used. No differences in the results generated using these two different measures of Pendleton/Okinawa congruency were found. The results of all regression analyses showed that congruency between Pendleton and Okinawa did not add significantly to the prediction of the three adjustment factors above that gained by knowledge of the Pendleton expectations or Okinawa reports separately. When individual items within the three adjustment factors were analyzed, it was found generally that Pendleton expectations were better predictors of Okinawa adjustment than were evaluations of Okinawa. For example, multiple R's achieved using the ten Pendleton expectation items alone were higher (though not statistically significantly so) for adjustment items intention to re-enlist ($R=.52$), heavy drinking while in Okinawa ($R=.53$) and getting angry ($R=.53$) than when responses on the same ten items in Okinawa were used to predict these adjustment indices ($R's=.43, .44, .39$ respectively). These results provided no support for hypothesis one of this study.

Amount and Perceived Accuracy of Information

Hypothesis two suggested that transfer adjustment would be positively related to the amount and perceived accuracy of information received prior

to the transfer. Table 8 contains the correlations among the twenty-one major independent variables and eight dependent variables in this study. Independent variables 4, 5, and 6 relate specifically to hypothesis two. Only minor support for hypothesis two is found. Total information accuracy and the product of amount x accuracy across all types of information (total product) correlated significantly ($p < .05$) with Okinawa short term enlistment commitment. Total information amount correlated somewhat ($p < .10$) with short term enlistment commitment and cognitive/social coping behaviors. Total product also correlated ($p < .10$) with cognitive/social coping behaviors. Hypothesis two was not strongly supported.

Pre-transfer Satisfaction

Hypothesis three suggested that a relationship between pre-transfer satisfaction and transfer adjustment would exist, although the direction of that relationship was uncertain. Some support for this hypothesis was evidenced. Satisfaction with Camp Pendleton correlated positively and significantly with both Okinawa long term re-enlistment commitment and Okinawa cognitive/social coping behaviors. No other significant correlations were found.

Pre-transfer Commitment

Two measures of pre-transfer commitment were obtained at Pendleton. Short-term commitment indicated the individual's intention desire to complete his present enlistment, while long-term commitment dealt primarily with the individual's intention to re-enlist in the Marine Corps following his present enlistment. Hypothesis four stated that these two measures of pre-transfer commitment would be positively related to transfer adjustment. Support for this hypothesis is evidenced in Table 8. Pendleton short term

TABLE 8

Correlations Among Major Independent
And Dependent Variables

	Self-rated Okinawa Adjustment	Short-term Enlistment Commitment	Long-term Re- enlistment Commitment	Attitude Toward Living/Social Activities
1. Expectations: Living/Social	.33**	-	-	.28*
2. Expectations: Natives/ Environment	-	-	-	-
3. Expected Adjustment	.45**	-	-	-
4. Total Information	-	.24+	-	-
5. Total Accuracy	-	.27*	-	-
6. Total Product	-	.30*	-	-
7. Satisfaction with Pendleton	-	-	.46**	-
8. Short-term Enlist- ment Commitment	-	.58**	.31*	-
9. Long-term Enlist- ment Commitment	-	.22+	.68**	.20+
10. Previous Adjustment	.38**	-	.34**	-
11. Number of Cities	-	-	-	-
12. Number of Weeks	-	-	-	-
13. G.T. Composite	-	-	-	-
14. AFEE	-	-	-	-
15. Education	-	-	-	-
16. Length of Service	-	-	-	-
17. Attitude of Family	-	.22+	-	-
18. Attitude of Girlfriend	-	-	.29*	-
19. Cognitive/Social Coping: Pendleton	-	-	-	-
20. Hobbies/Sports: Pendleton	-	-	-	-
21. Negative Coping: Pendleton	-	-	-	-.23*

+p < .10

*p < .05

**p < .01

TABLE 8 (cont.)

Correlations Among Major Independent
And Dependent Variables

	Attitudes Toward Natives/Environ- ment	Cognitive/Social Coping: Okinawa	Hobbies/Sports: Okinawa	Negative Coping: Okinawa
1. Expectations: Living/Social	.21*	-	-	-
2. Expectations: Natives/ Environment	.31**	-	-	-
3. Expected Adjustment	-	-	.19+	-.24*
4. Total Information	-	.22+	-	-
5. Total Accuracy	-	-	-	-
6. Total Product	-	.25+	-	-
7. Satisfaction with Pendleton	-	.25*	-	-
8. Short-term Enlist- ment Commitment	-	.23*	-	-.34**
9. Long-term Enlist- ment Commitment	-	.46**	-	-.33**
10. Previous Adjustment	-	.25*	-	-
11. Number of Cities	-	-	-	-.43**
12. Number of Weeks	-	-	-	-
13. G.T. Composite	-	.22+	-	-
14. AFEE	-	-	-	-
15. Education	-	-	-	-.29*
16. Length of Service	-	.29*	.23*	-
17. Attitude of Family	-	-	-	-
18. Attitude of Girlfriend	-	-	-	-
19. Cognitive/Social Coping: Pendleton	-	.55**	.35**	-
20. Hobbies/Sports: Pendleton	-	-	-	-
21. Negative Coping: Pendleton	-	-	-	.55**

+p < .10

*p < .05

**p < .01

enlistment commitment was significantly correlated ($p < .05$ or less) with four of the eight adjustment factors, i.e. Okinawa short term commitment, Okinawa long term commitment, cognitive/social coping behavior, and negative coping behaviors. All correlations are in the predicted direction with a negative relationship between pre-transfer short term commitment and the frequency of negative coping behaviors consistent with the hypothesis. Pre-transfer long term re-enlistment commitment was significantly correlated ($p < .05$ or less) with Okinawa long term commitment, cognitive/social coping behaviors and negative coping behaviors. Pre-transfer long term commitment was correlated ($p < .10$) with Okinawa short term commitment and Okinawa attitudes toward living/social activities. Taken together, these results indicate moderate support for hypothesis four.

Personal/Demographic Characteristics

Hypothesis five stated that a positive relationship would exist between transfer adjustment and past transfer adjustment success, education level, ability level, past travel experience, and length of service in the Marine Corps. Independent variables 10-16 (Table 8) relate specifically to this hypothesis. Previous transfer adjustment success correlated significantly with self-rated Okinawa adjustment, Okinawa long term commitment, and cognitive/social coping behaviors. The number of cities in which the individual had lived previous to joining the Marines correlated negatively and significantly with frequency of negative coping behaviors as did education level. Scores on the G.T. Composite Test marginally correlated ($p < .10$) with cognitive/social coping behaviors. Length of service correlated with cognitive/social coping behaviors and hobbies/sports behaviors. Number of weeks outside the U.S. and scores on the Marine AFEE test did not

correlate with any measure of transfer adjustment. These results provide some support for hypothesis five, in that those correlations found to be significant were all in the predicted direction.

Attitude of Significant Others

Hypothesis six proposed that the attitudes of the family and girlfriend of Marines would be positively related to transfer adjustment. Attitude of girlfriend was significantly correlated with only one measure of transfer adjustment, long term commitment. Family attitude correlated marginally with short term commitment. Hypothesis six was not well supported.

Coping Behaviors

Hypotheses seven and eight dealt with the relationship among pre-transfer behavior patterns and transfer adjustment. In Table 8, independent variables 19-21 relate to these two hypotheses. Consistent with hypothesis seven, a significant positive correlation was found between pre-transfer negative behavior patterns and negative behavior patterns following transfer. Additionally, pre-transfer cognitive/social coping was found to significantly relate to the frequency of these behaviors in Okinawa as well as other positive hobbies/sports behaviors. Consistent with hypothesis eight, the frequency of pre-transfer negative coping behaviors was negatively related to Okinawa long term commitment and attitudes towards living/social aspects of Okinawa life. No support for hypothesis eight was found when the relationships between positive pre-transfer coping behaviors (variables 19, 20) and other aspects of Okinawa adjustment were assessed.

Predictive Model of Transfer Adjustment

The final analyses conducted in this study were done to examine our ability to predict various aspects of transfer adjustment with knowledge of

personal/demographic factors and other data related to pre-transfer experiences. For each of the eight indices of transfer adjustment, variables which individually correlated significantly ($p < .05$) with an adjustment index were input into a stepwise regression procedure. Thus, for each adjustment index, a stepwise regression analysis was used to determine the percent of variance accounted for by predictor variables which individually correlated most highly with that index. The results of these analyses are presented in Table 9.

For four of the dependent variables, only one independent variable contributed significantly to the prediction equation (short term commitment, attitudes toward living/social activities, attitudes toward natives/environment, and cognitive/social coping behaviors). It should be noted that the multiple R's reported for these three variables based upon one independent variable differ slightly from the simple correlation between the variables reported in Table 8. This was caused by the way the computer program used for the regression analyses treated missing data. A case was included in the regression analysis only if data on all variables were present. Thus, the sample sizes for the regression procedures varied somewhat from the sample sizes associated with individual independent-dependent variable correlations.

For those regression equations consisting of more than a single independent variable, the percent of variance accounted for ranged from .20 (hobbies/sports in Okinawa) to .58 (Okinawa long term re-enlistment commitment).

TABLE 9
Results of Regression Analyses Using
Selected Independent Variables to Predict
Eight Major Dependent Variables

	<u>Dependent Variable</u>	<u>Independent Variables*</u>	<u>R**</u>	<u>R²</u>
I.	Self-rated Okinawa Adjustment	1. Expected Adjustment 2. Previous Adjustment	.47 .52	.22 .27
II.	Short-term Enlistment	1. Pendleton Short-term Commitment	.58	.34
III.	Long-term Re-enlistment	1. Pendleton Long-term Commitment 2. Satisfaction with Pendleton 3. Attitudes of Girlfriend 4. Pendleton Negative Coping (Neg.)	.80 .73 .75 .76	.49 .53 .56 .58
IV.	Attitudes Toward Living/Social Activities	1. Expectations: Living/Social Activities	.28	.08
V.	Attitude Toward Natives/Environment	1. Expectations: Natives/Environment	.31	.09
VI.	Cognitive/Social Coping	1. Pendleton Cognitive/Social Coping	.50	.25
VII.	Hobbies/Sports	1. Pendleton Cognitive/Social Coping 2. Length of Service	.35 .45	.12 .20
VIII.	Negative Coping Behaviors	1. Pendleton Negative Coping 2. Number of Cities (Neg.) 3. Pendleton Long-term Commitment (Neg.)	.55 .62 .67	.31 .39 .45

*all independent variables listed added significantly to the regression equation at $p < .05$ or less

**all R's are significant at $p < .05$ or less

DISCUSSION

Hypothesis one of this study stated that the realism of expectations concerning Okinawa would be strongly related to Okinawa adjustment. No support for this hypothesis was found. Expectations were more strongly related to adjustment than was the realism of those expectations. These findings seemed to set the stage for the other results of this study. Taken as a whole, the results seem to indicate that the transfer itself had relatively little effect upon the behavior patterns of the Marines making the transfer. The results of the regression analyses strongly support this notion. Self-rated Okinawa adjustment was best predicted by expected adjustment, measures of intention to re-enlist taken in Okinawa were best predicted by Pendleton intention to re-enlist, negative activities in Okinawa such as getting drunk, using drugs, getting in fights were best predicted by the propensity of the individual Marine to engage in these activities prior to leaving for Okinawa, and so on. Only in the case of predicting Okinawa activities involving hobbies and sports was the Pendleton incidence of occurrence not the best predictor.

Possible Explanation of the Results

There seem to be at least three potential explanations for these results. These explanations relate to (1) the method used to collect the research data, (2) the fact that this transfer was part of a "unit rotation," and (3) the existence of a personal adjustment style/maturity level.

Methodology. As indicated in the methods section of this paper, the questions in both the Pendleton and Okinawa survey instruments were essentially identical in nature. Thus, at least part of the relationship between data taken at the two locations could be due to response-response

One fact which mitigates methodology as the primary explanation of the results is that the surveys were completed a full six months apart. A considerable number of very major activities and life changes had occurred during the time between the two data collections. Although it was obvious at the beginning of the Okinawa data collection that the Marines participating in the study remembered the researchers, it was not evident that they remembered the survey instrument itself; at least not to an extent that the Marines were simply providing answers which were internally consistent with their previous Pendleton responses. Thus, although the two survey instruments were very similar, it would not seem, given the considerable period of time between the two administrations, that memory could account for the major part of our results. It might be noted that data relevant to transfer adjustment was also obtained from Marine personnel files (e.g. disciplinary problems reported on official files) in an attempt to counteract some of the method difficulties. However, data on these variables were available for so few of the sample members that analyses using these alternate data proved fruitless.

Unit rotation. The Marine Corps has recently begun the practice of transferring entire battalions of Marines to Okinawa (unit rotation) rather than individuals alone (individual rotations). Thus, the Marines making the transfer are able to move intact the basic social and work support systems in which they have previously been operating. If one were to classify transfers according to their complexity, i.e. the number of "elements" in the new environment to which the transferee must adjust, the unit rotation program reduces this level of complexity. Our data suggests that this unit rotation program tends to encourage consistency in behavior across the

transfer sites. Since individuals are in the same basic social system, with the same norms of behavior and pressures towards conformity, their behavior (whether good or bad) remains relatively constant.

Some support for this explanation of our results exists. As part of both the Pendleton and Okinawa surveys, data were collected concerning group norms. Marines were asked to rate the extent to which other Marines in their unit would approve or disapprove of specific behaviors. Table 10 contains the mean responses of Marines on each of seventeen norm questions collected at Pendleton and Okinawa. The results of dependent t-tests of differences between the Pendleton and Okinawa means are also given. As can readily be seen in Table 10, only one significant difference between Pendleton and Okinawa group norm perceptions was found. There was significantly less approval for use of drugs other than alcohol in Okinawa than at Pendleton. These data are indicative of the fact that the norm structure of the unit (at least as perceived by individual Marines) remained essentially the same in Okinawa as it had in Pendleton. It comes as no surprise then, that the level of social/cognitive coping and negative coping behaviors at Pendleton would be most predictive of Okinawa levels of these behaviors.

Personal adjustment style. A final explanation of our results rests with the notion that individuals may possess a typical adjustment style when making a transfer. At the end of the Okinawa survey, each interviewer spent some time talking in a very informal manner with each Marine. For individuals who seemed to have adjusted well to Okinawa, the phrase "I just get along wherever I have to live" was often given to interviewers when they asked why the individual had adjusted well. A similar kind of re-

TABLE 10

Test of Differences Between Mean Responses+
To Norm Questions

Item	Pendleton		Okinawa		n	t
	\bar{X}	SD	\bar{X}	SD		
1. Criticize unit	3.04	1.17	3.19	.99	78	-1.00
2. Do just enough	3.19	1.17	2.94	1.16	78	1.61
3. Go to Officer/ NCO with problem	3.79	.89	3.60	1.12	78	1.24
4. Get to know others	3.73	1.05	3.81	.85	78	-.56
5. Sit and complain	2.71	1.27	2.87	1.13	78	-.90
6. Talk with pride	3.06	1.19	3.08	1.11	78	-.09
7. Work harder than normal	3.00	1.09	3.01	1.15	78	-.08
8. Criticize NCO's	3.14	1.03	3.23	1.16	78	-.60
9. Take advantage of another Marine	1.94	.91	2.17	1.11	77	-1.51
10. Criticize Marine Corps	3.29	.99	3.12	.92	77	1.26
11. Urge others to do well	3.53	.91	3.56	.92	78	-.33
12. Argue and fight	2.03	.94	2.27	1.07	78	-1.64
13. Get Drunk	3.23	.81	3.38	1.02	78	-1.04
14. Misuse Equipment	2.24	.87	2.23	.98	78	.11
15. Criticize officers	3.05	.97	2.99	1.08	78	.43
16. Express concern for others	3.95	.72	3.74	.96	78	1.84
17. Use drugs	3.12	.79	2.73	1.19	75	2.47*

+The larger the number, the more positive the approval.

*p < .05

sponse has been frequently received in a yet uncompleted study by the authors of U.S. Air Force personnel who are undergoing a transfer. Such statements might lead us to conclude that through an interaction of personal characteristics and past transfer experiences, individuals develop a pattern of behaviors which they use when facing a transfer, i.e. an "adjustment style." Unfortunately, no classical measures of personality were obtained as part of the present study, nor was a detailed analysis of past transfers available. Data contained in Tables 8 and 9 do show that measures of previous transfer adjustment correlated significantly with three indices of Okinawa adjustment. Number of cities lived in prior to joining the Marines and education level correlated negatively and significantly with Okinawa level of negative coping behavior. Additionally, length of service correlated significantly with Okinawa cognitive/social coping and hobbies/sports. Each of these independent variables can be thought of as relating to the opportunity (length of service, number of cities) or ability (previous adjustment, education) to develop behavioral or cognitive means of dealing with transfers.

Predictive Model of Adjustment

As is evidenced in regression analyses contained in Table 9, our ability to predict Okinawa adjustment is quite respectable. For five of the eight adjustment indices we were able to account for at least 25% of total variance. Using these as a measure of success, our regression equations are encouraging. From a more theoretical point of view, however, our prediction equations are less meaningful. For all but one of the adjustment indices, measures taken at Pendleton, using essentially the same items were the most predictive variables in the equations. Because of the possible

methodological problems involved, such results should be viewed cautiously. Additionally, a major problem with shrinkage of the multiple R's exists. The rather small sample and large number of independent variables (even after items had been condensed to factors) make the need for replication of these results essential.

Summary and Conclusions

The present study showed that there was a considerable consistency between attitudes and behaviors exhibited at Camp Pendleton, California and Camp Hansen, Okinawa by Marines in our sample. Although some percent of the variance explained in our study may have been due to methodological artifacts, the data suggests more strongly the idea that our results were influenced by the unit rotation program that the Marine Corps has instituted in its transfer practices. Another factor which may have been evidenced in our results was the "personal adjustment style" which individuals may develop to deal with relocation experiences. The size of our sample and the nature of our data cause us to view those results with some caution.

Future research in this area requires (1) a considerably larger sample size to insure greater stability in the regression equations, (2) the availability of "hard" measures of transfer adjustment, (3) that data for persons making "individual" transfers be obtained, and (4) that more extensive data concerning personality/demographic factors (including information about previous relocation experiences) be obtained.

The results of this study would imply that, when unit rotation procedures are used, efforts to insure that the transfer is "successful" should be concentrated around selection of individuals to make the transfer rather

than in realistic orientations before transfer or environmental interventions once the transfer has occurred. It is very likely that individuals with significant behavioral/attitudinal problems prior to the transfer will continue to exhibit those behaviors/attitudes after transfer. Likewise, individuals with positive pre-transfer attitudes and behaviors will continue those. This is not to suggest that efforts towards providing individuals with pre-transfer information or in making the transfer site as desirable as possible should be abandoned or lessened. Responses to interviewer questions indicated that efforts to enhance the recreational and educational activities available in Okinawa were greatly appreciated and had a positive attitudinal effect. The data from this study suggests, however, that the mere provision of the activities will not solve more basic problems associated with the individual's ability to make use of such opportunities. For individuals who have exhibited attitudinal or behavioral problems prior to transfer, the Marine Corps may well be served by either (1) selecting that individual out of the transfer process, or (2) developing programs to determine the social or personal adjustment characteristics of the individual which foster these difficulties.

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APPENDIX A

Information Amount and Accuracy From Nine Sources

Information about Okinawa

Below we would like you to tell us who gave you information or advice about Okinawa, and how accurate you think that information is. We are interested in three types of information: about your job in Okinawa, about life in general in Okinawa, and about how to best adjust to conditions in Okinawa.

On this page, please tell us who gave you information and how accurate it is regarding your job in Okinawa. Use the following scales. Write the number of your answers for each source on the lines beside each source.

How much information did
you receive from each
source about your job?

- 0 = none
- 1 = some information
- 2 = much information

How accurate do you
think the information
is from each source?

- 0 = you received no information from that source
- 1 = uncertain how accurate
- 2 = fairly inaccurate
- 3 = fairly accurate

<u>Source</u>		
1. Formal Marine Corps Orientation	_____	_____
2. Recruiter(s).	_____	_____
3. NCO(s).	_____	_____
4. Officers in my unit . . .	_____	_____
5. Other Marines who have been to Okinawa	_____	_____
6. Other Marines who have <u>not</u> been to Okinawa . . .	_____	_____
7. Relatives/friends <u>not</u> in the Marine Corps . . .	_____	_____
8. Official Marine Corps publications, booklets. .	_____	_____
9. Career counselors	_____	_____
10. Others (specify).	_____	_____

APPENDIX A (CON'T)

Now do the same thing again for your sources of information about life in Okinawa in general (for example, climate, entertainment, terrain, natives, etc.)

How much information did
you receive from each
source about life in
general in Okinawa?

0 = none
1 = some information
2 = much information

How accurate do you
think the information
is from each source?

0 = you received no infor-
mation from that source
1 = uncertain how accurate
2 = fairly inaccurate
3 = fairly accurate

Source

- | | | |
|---|-------|-------|
| 11. Formal Marine Corps
Orientation | _____ | _____ |
| 12. Recruiter(s). | _____ | _____ |
| 13. NCO(s). | _____ | _____ |
| 14. Officers in my unit . . . | _____ | _____ |
| 15. Other Marines who have
been to Okinawa | _____ | _____ |
| 16. Other Marines who have
not been to Okinawa . . . | _____ | _____ |
| 17. Relatives/friends not
in the Marine Corps . . . | _____ | _____ |
| 18. Official Marine Corps
publications, booklets. . | _____ | _____ |
| 19. Career counselors | _____ | _____ |
| 20. Others (specify). | _____ | _____ |

APPENDIX A (CON'T)

Now do the same thing again for your sources of information about how best to adjust or cope with living in Okinawa.

How much information did
you receive from each
source about adjusting to
Okinawa?

How accurate do you
think the information
is from each source?

0 = none
1 = some information
2 = much information

0 = you received no infor-
mation from that source
1 = uncertain how accurate
2 = fairly inaccurate
3 = fairly accurate

Source

- | | | |
|---|-------|-------|
| 21. Formal Marine Corps
Orientation | _____ | _____ |
| 22. Recruiter(s). | _____ | _____ |
| 23. NCO(s). | _____ | _____ |
| 24. Officers in my unit . . . | _____ | _____ |
| 25. Other Marines who have
been to Okinawa | _____ | _____ |
| 26. Other Marines who have
not been to Okinawa . . . | _____ | _____ |
| 27. Relatives/friends not
in the Marine Corps . . . | _____ | _____ |
| 28. Official Marine Corps
publications, booklets. . | _____ | _____ |
| 29. Career counselors | _____ | _____ |
| 30. Others (specify). | _____ | _____ |